

NOTES

JOIN THE EXPEDITION AT THE MONROE INSTITUTE

FROM

WHERE RESEARCHERS USE THE SCIENCE OF SOUND

THE NEW

TO EXPLORE ALTERED STATES OF CONSCIOUSNESS

LAND

ARTICLE BY MURRAY COX

f a lion could talk, we could not understand him.—Ludwig Wittgenstein

On the first night, they take your watch away. A staff member walks around the room holding a small cardboard box, stops before each participant—there are 24 of us—and waits as each of us unsnaps or unhooks the timepiece, looks at it fondly, and reluctantly drops "time" into the box. As the trainer approaches me, I note the internal conflict, the disposition to say, "No, I'll hang on to time." I stare into the beat-up repository filling up with our "time," and I begin to soften. What, I wonder, am I hanging onto? A mere gadget, or a relatively recent idea which represents a way of life for us—an idea foreign to our earliest ancestors. I remember the lyrics from a song sung a long time ago by Chicago: "Does

PHOTOGRAPHS BY PETER LIEPKE



THE VOYAGERS:
FOUNDER ROBERT A.
MONROE (OPENING
PAGE); F. HOLMES
ATWATER, BRAIN LAB
DIRECTOR (ABOVE)



anybody really know what time it is? Does anybody really care?" I deposit the construct in the box.

No time. Just a series of "nows" which will last, ironically, seven days, because we signed up for a week-long seminar at the Monroe Institute, located near Lovingston about 25 miles south of Charlottesville, tucked away in one of the gentle valleys of Virginia's Blue Ridge Mountains. Residents call the place the "New Land"-and the land is spectacular. The tug-of-war over my Swatch is a picture story of my experience at the Institute as I began to knock up against my frameworks, the set of stories which determine who I am, the internal grids by which I sort out the incoming data and make up what I say I believe—do I accept, for example, the principle of scientific objectivity and reject the ideology that the sciences are historically and culturally contingent?

"Consider that you are more than your physical body," says Robert A. Monroe, founder of the Institute. More than matter, greater than the physical universe, and so not limited by timespace constraints. For a week, I consider Monroe's proposition—along with the other participants. We've come from all over the world—in the States, from Little Rock, Arkansas; Bliss, Idaho; Peekskill, New York; Brevard, North Carolina. From other



shores—Fife, Scotland; Ibaraki-Ken, Japan; Bloemendaal, Holland; and from Offemont, Ville D'Avray, Hem, and Cernay in France. A psychiatrist; a doctor; two pilots; a real-estate agent; a young, retired Wall Street broker; a writer; a psychic healer; a journalist. We represent different beliefs, perspectives, political persuasions—Catholicism, Republicanism, agnosticism, anarchism.

The program's called the Gateway Voyage, and according to Monroe, Gateway is "designed to gently guide you into the experience of what we call your 'nonphysical energy.'" You may know it as chi, prana, soul, astral body,

higher consciousness. The Institute's dogma is limited: Consciousness is a form of energy at work and it can be tapped, controlled, and used; because thoughts create reality, we are what we think, and we limit ourselves by what we think; belief systems modulate how we experience ourselves and the world around us. Gateway, Monroe says, provides participants with an opportunity for self-exploration, to ask themselves some rather basic questions: Who am I? What is my purpose during my sojourn on Earth? According to Monroe. the goal of Gateway "is generation and transformation only. There are parts of you," he says to us, "yet to be transformed." And that's his mission and his business: to help people who want to transform themselves. To accomplish this goal, Monroe discovered a technique for inducing altered states of consciousness and now provides a spacious place, the New Land, to experiment with nonphysical energy.

The adventure at Monroe begins and ends in the Controlled Holistic Environmental Chamber (CHEC unit)-or, as I alternately dubbed it, womb, monk's cell, coffin. Large enough for a single mattress, the cell is dark-I'm isolated from light and sound and insulated to a small degree from electromagnetic radiation. If I want light, it's there-red, blue, and gold. I pick the color, adjust the intensity. Fresh air is constantly pumped into the chamber. I spend most of the week in the CHEC unit-by day and night. It is the berth where I sleep. It is the alchemist's secret lab where for six or seven hours a day, I try to transform base materials into gold. It's where I ask the cosmos-or just the ceiling-the child's question, "Why?" and hesitantly begin to weave the various threads of my life story into one garment. The cell becomes site of recognition where, with a certain amount of ease, I realize I wouldn't rewrite the story even if I could.

From a central control room, an audio network feeds sound patterns and special exercises designed by Monroe to each unit under the direction of a team of trainers. We receive the directions and the sound patterns through headphones. Each cell also contains an individual tape recorder. When an exercise is completed and Monroe calls you back from where you've been, you record your experience—a "vocal diary," as Monroe says.

EEG BRAIN MAPPING OF THE HEMI-SYNC PROCESS

The Hemi-Sync process is a patented auditory guidance technology based on the natural functioning of the brain. Originally developed by Robert A. Monroe and continuously being improved through research at the Monroe Institute, Hemi-Sync employs a blended and sequenced series of binaural sound pulses to induce a Frequency-Following Response in the human brain. Hemi-Sync alters EEG brain-wave patterns and generates expanded states of consciousness, what researchers call "dissociative" and "transcendent" states. When experiencing a dissociative state, an individual perceives nonphysical phenomena as constituting his or her whole field of awareness, like a dream.

Additionally, during a dissociativestate experience, there is no impression of being "normally" in the physical body, because the physical body itself is either asleep or fully entranced. In electroencephalographic brain mapping, the shift from normal waking consciousness into a dissociative state is evidenced by a change in amplitude, frequency, and locale of predominant brain waves.

The waking state is characterized by alpha and beta (8–30 hertz) brain waves. Alpha brain-wave activity confined to the cortex behind the Sylvian sulcus (the back of the head) is known as "resting-state alpha." The dissociative state is characterized by elevated amplitude, synchronous slow-wave delta and theta (0–8 hertz), and the suppression of the alpha and beta activity established in the waking state. As one moves toward a dissociative-state experience, resting-state alpha activity is suppressed and replaced by synchronous slow-wave activity in the median of the central cortex (top of the head).

Beyond dissociation, there is transcendence. An experience in a transcendent state can be defined as being outside the normal limits of one's ego and the personal unconscious mind, into a universal awareness. Experiences in this state are many times ineffable and cannot be explained or described in mere words. In terms of EEG brain mapping, the shift from a dissociative state into transcendence is evidenced by further changes in amplitude, frequency, and locale of predominant



Transcendent state:
"Seeing" beyond the limits
of normal perception
into universal awareness—
ineffable, profound.



When consciousness shuts down, the body is asleep or in a meditative state—like in a dream.



Resting-state alpha: Sylvian sulcus shows and tells all—from the way we process reality to our temperaments.



brain waves. The transcendent state is characterized by "resting-state alpha" and relatively high-amplitude, synchronous slowwave activity in the median of the central cortex accompanied by regional (commonly temporal) gamma (30-hertz-plus) brainwave activity.

The characteristic EEG parameters of resting-state alpha reveal an individual's temperament, the customary way in which an individual processes and interacts with the world he or she perceives. The suppression of this alpha activity frees one to perceive nonphysical energies outside the confines of physical-law belief systems. The ability to modify resting-state alpha directly affects one's experience of his or her environment. Changing or suppressing ones' resting-state alpha effectively transforms the person's perceptual venue, or concept of reality.

Hemi-Sync generates an audioencephalographic interferometric effect which can be used to transform or suppress innate resting-state alpha and stimulate alternative brain-wave patterns necessary for dissociative- and transcendent-state experiences. Some "Focus Level" Hemi-Sync frequencies used do not interfere with resting-state alpha and allow the listener to integrate and relate to "tape experiences" in his or her everyday, familiar life. Other Hemi-Sync frequencies modify or suppress resting-state alpha to provide listeners with hi-fidelity, rich Focus Level dissociative states and transcendent experiences.

With the advent of modern computerized EEG brain mapping, objective EEG evidence of the effect of the Hemi-Sync process has been established. The lower auditory centers of the brain provide the neural pathways for the propagation of binaural beats. It is there, in each hemisphere's olivary nucleus, deep inside the brain, that beat-frequency oscillations can be measured directly. At the cortex, the site of EEG brain-mapping electrodes, these original binaural frequencies can only be observed as having been integrated with prevailing electroneural activity. It is the brain-wave entrainment which occurs during this integration process that accounts for the effectiveness of the Hemi-Sync sound patterns.—F. Holmes Atwater

Journal entry: The experiment begins. After a simple preparatory ritual in which I toss intruding worries or cares into an "energy conversion box," slam the lid shut, I spend a few minutes breathing deeply and then count myself to Focus 10: mind awake, body asleep. I lie in the dark, disoriented. My body is heavy, as if it were being crushed by a compressor. I can't locate my legs. My arms are suspended above my head. I think my head's been severed. I'm cold and pull up a blanket. I'm hot and kick it off. Radical temperature changes, I "click out"-I go blank, and when I wake up. I'm snoring. I lie quietly in the cell and listen to myself snore. This strange occurrence startles me: I am both a "hearing I" and a "snoring I." Where does the "hearing I" reside? I wonder. Who is the "I" that hears the body snore? Does the mind operate independently of what I've considered necessary physical or sensory input signals? At the end of the tape, I feel relaxed, even blissful. I've made a discovery of sorts. Perhaps I am "more" than my physical body, and I exist whether I'm in the body or not. And then I wonder, am I a character?dreamt? invented?

Lying in my cell on the second day, I thought of Don Quixote whom Monroe reminds me of. Where the Don saw giants, Sancho Panza, his sidekick, saw windmills. Gazing into a simple barber's basin, the Don saw the Shield of Mambrino, and Sancho wondered, How can these things be? Monroe, I think, is a descendant of the Don, telling us there's more to reality than what we see or touch.

In The Reenchantment of the World (Cornell University Press; 1981), science historian Morris Berman writes: "The Don's adventures are an attempt to decipher the world, to transform reality itself into a sign. His journey is a quest for resemblances in a society that had come to doubt their significance." Cervantes' Don (part 1 was published in 1605) represented the medieval world view, a belief system in which there were no divisions between physical and spiritual, mind and body, symbolic and literal-a seamless "garment." We are the heirs of a postmedieval viewpoint characterized by discrete, separate divisions between body and soul, inner and outer, subject and object, health and disease, observer and observed—a "coat of many colors." By our standards, the Don is paranoid, a babbler of gibberish. And like the Don, Monroe calls on us to shift our focus, to see what we may not think we can see—to see the Shield of Mambrino. "Where," Monroe asks, "is the mystery in our culture and age? We're here to rekindle the mysterious; that's what the Gateway Voyage is all about."

Journal entry: I feel completely cut off from the outside world. What if there's a war? There's bound to be a major incident occurring somewhere in the world. And I sit in a valley in Virginia without access to television news. CNN. NPR's "All Things Considered." In fact, I haven't even seen a newspaper. The crew is restless, complaining about the food-I think we're "offloading" our anxiety onto the only ritual that is familiar to us in this unfamiliar world-the act of eating. We wonder if anything is actually happening to us. The inevitable question: Have you left your body yet? OOBs [out-of-body experiences] are the Holy Grail of the retreat. I'm hooked. Monroe, indifferent to our desire, shifts our focus, telling us to perceive the "subtle stuff"—images, voices, patterns of light, physical sensations. Do I tell the others why I've come? To try to find a place of calm in the midst of terror, a source of light when even the moon has set, and I hear a doctor tell me a masterful story of invasion, ending with a stern command: Get your affairs in order; sign a living will; designate a health-care proxy. The story names me, masters me. With a pounding heart, I get out of bed, and pace, questioning the fear, trying to put a face on the demon.

Monroe's been at this consciousness business for more than a quarter of a century, and he's familiar with accusations such as "paranoid, babbler of gibberish." In 1958, as a very successful radio-show producer with his own company, he experienced what today he calls a glitch, a variable—the unexpected. He began to have spontaneous OOBs. "I respected the scientific and social paradigms of my day," he says, "and I wasn't prepared to understand my bizarre experiences." He thought he was going mad, quite literally. The experts whom he consulted said he was probably having a "minor hallucinatory break." He rejected the diagnosis.

To find out what was happening to him, he set up—under cover—a division in his company to explore the outof-body state. He recruited volunteers, including medical doctors, a physicist, an electronics engineer, a psychiatrist, and social workers to lie in a darkened booth—air, temperature, and acoustics controlled—wired to transmit physiological signals: eight-channel EEG (brainwave electrical patterns), EMG (muscle tone), pulse rate, and body voltage.

He immediately faced a problem: His subjects fell asleep in the darkened chamber. To keep them awake, Monroe began to utilize sound, a medium he was familiar with. In the process, he discovered what he calls Frequency-Following Response (FFR) for which he received a patent in 1975: Certain sound patterns evoke electrical responses in the brain waves of the subject. By controlling the brain-wave frequency, Monroe was able to help volunteers relax, stay awake, or put them to sleep. He soon found combinations of sound frequencies that created FFRs which were highly conducive to OOBs—and other meditative states.

The first state Monroe identified is Focus 10 (mind awake, body asleep), the "place" where I startled myself when I heard myself snore. According to the physiological data, the cerebellum, working below the level of consciousness and controlling muscle and body functions, gets tuned to a delta (deepsleep) frequency. And so the body is relaxed, if not asleep. But the cerebral or neocortex, a "thinking cap" stuffed with 100 billion neurons, is fed a theta (presleep) frequency. Monroe worked out the exposure to the beats, introducing the delta signal to the cerebellum and later mixing in the theta cerebralcortex signals.

And that's when the joint started jumpin': lights, color patterns, voices, music, loud explosions, a lowering of blood pressure and pulse, slight temperature drops, loss of muscle tone. And almost every subject began to talk about perceiving a pinpoint of light. When the volunteer moved to the light, it expanded, and as the volunteer moved through it, the OOB was achieved. So much for the early days.

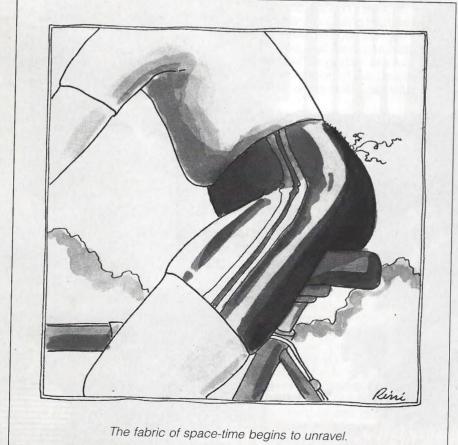
Today, Monroe calls the process by which altered states are induced, Hemi-Sync (hemispheric synchronization). After working with some 3,000 test subjects (with a minimum of 20 individual tests per subject, that comes out to 60,000-plus tests—not bad for a test base), the kinks have been worked out. Monroe, always the joker, says, "At the very least, we know that we have been able to put people to sleep 60,000 times and awaken them." But he's done more than that.

Hemi-Sync uses patterns of sound to create simultaneously an identical wave form in both brain hemispheres. This means that when your ear hears a certain type of sound signal, say a 12-hertz beta (awake) signal or deepsleep delta signal (0–4 hertz), the brain tends to respond or "resonate" with similar electrical signals. "We began to recognize that we were creating for the participant a doorway, a window,

a gap through which he or she could achieve other states of consciousness," Monroe says. "We called it Gateway."

According to Monroe, the applications of Hemi-Sync are limitless. Researchers are testing the technology in a wide variety of fields, including medicine, mental health, stress management, and education. In the physical arena alone, studies have shown that people utilizing Hemi-Sync can control pain, strengthen the immune system, hasten recuperation from surgery, lower blood pressure, and enhance recovery of speech and motor skills after a stroke. Hemi-Sync combats insomnia, improves concentration, reduces stress, even eliminates math phobia.

Journal entry: I feel like I'm playing on a line, a line of demarcation between "here" (the known) and "there" (the unknown). Today, we journeyed to Focus 12, where, according to Monroe, physical data is shut off and consciousness begins to perceive in ways other than through the five senses. "The action really begins here," he says. "There," in Focus 12, images and scenes stream through my head as though someone had left a projector running: Sea snakes swim through the monk's cell; a tall Kalahari bushman lifts me up on the palms of his hands; gigantic sea turtles chase me through a grove of eucalyptus trees; a Native American sits on top of a mountain chanting. He looks through me and says, "We're created every day by the light of the sun. We die each night by the light of the moon. There is nothing more. Now go: leave me." At one point, I begin to laugh. I've never laughed so hard without the help of another. And then I reenact in vivid dramatization my brother's death in 1947, hear a voice that says I once lived on the star Arcturus, and ride a dolphin who identifies himself as Floris. Meaning what? I ask. "Of the flowers," he retorts. The scent of jasmine pervades the cell. I hear rain pounding on a roof of corrugated iron. I'm transported to Lahore, Pakistan, when I smell the jasmine, and to Miango, Nigeria, when I hear the pounding rain. And the dolphin issues pronouncements like, "Cover the pain with laughter," and "The wind, Nicodemus, the wind." Today, I'm disturbed. How do I read the enigmatic messages, interpret the images? There is a profound difference between saying, "I believe," and, "I know." The analytical one wants answers, but I am caught in a discourse with Wittgenstein's lion. I need to learn a new language. As time passes, I become suspicious of the values of "truth" and "meaning"—including Monroe's. Am I being conned? I cannot make sense of



what I mean even as I write out what I think I mean—"meaning" is like a yellow flashing light. Blinking on and off, it is present and then it is absent. The Native American chants, "There are only perspectives; there is no reality bevond our interpretations."

Focus 15. "The world of time and space is a projection," Monroe says. We are going to enter, he tells us, "no time." Enter "no time" and the past becomes the experiential moment, while the future unfolds and becomes present reality. Monroe guides us as we enter an alternate universe. On the edge of time and space, the child I once was appears as if he had just stepped out of a faded black-and-white Brownie photograph and takes my left hand. Out of an unknown time, an image rends a veil, taps his silver-tipped ebony cane, and walks toward me. "Who are you?" I ask. He introduces himself as "dead man with cane." "Are you what I will become after I'm dead?" I ask. He takes my right hand, and the three of us sit down and talk to each other. Actually, "dead man" does the talking. The boy and I are silent. He talks about continuums, completions, and wrap-ups. When I do pose questions to each of them, the questions dissolve in the act of asking. They are irrelevant.

Journal entry: The old man with the cool cane seemed as real as the boy I once was. Though distinct and separate and with what seems like independent wills, the three of us are the same person. Or we represent the same person. The old man tells me he's come from the future where a Spanish hacienda, walls draped with El Grecos, Wyeths, and Cimabues, has already been constructed. He's come, he says, to banish misfortune. And I am grateful. In fact, it seems as if I'd just stumbled upon the meaning of the word "gratitude"-and discovered a thing in the act of identifying with it. But I'm troubled. I'm not sure how much weight to give the imaginary realm. I feel like I'm making everything up-the old man is just a product of my imagination. Am I going to spend the week shadowboxing with my own psychic material? Maybe. What if, after my experience at Monroe, I've only discovered the imaginative side—a rich, complex and visual "knowing"? Immersed this week in an imaginary "unreal world." I look at the "real world" and feel detached. I wonder if either world is realIv "real." Breakfast talk: ESP, clairvoyance, channeling. I get the shivers.

Focus 21 is the equivalent of deep delta sleep, but you're fully awake and conscious. According to Monroe, Focus 21 is the bridge between physical and nonphysical reality. I climb up through the levels-Focus 10, 12, 15-and step onto the bridge. I "look out" and "see" a vast, immense Otherness. And then I'm riding the dolphin over the curvature of the earth, and together we shoot past Mars, Jupiter, Saturn, and out, beyond Pluto.

My body literally began to convulse joints pulsating, muscles in spasmas if I were being administered electricshock therapy. One surge of energy after another moved through me. I heard voices, saw lights and colors, shapes and forms. In 21, we threw questions into blank spaces and listened for a response: Who am I? Where and who was I before I entered this physical body? What is my purpose for this existence in physical matter? What action can I now take to best serve this purpose? What is the content of the most important message that I can receive and understand at this point in my existence? The "answers" were audible but enigmatic. Who was speaking? How do I interpret the answers? I don't know. Later, I picked up a paper written by F. Holmes Atwater, director of the brain lab: "Brain waves are more than just indicators of discrete states of consciousness. They represent the electrochemical environment through which perceived reality is manifest."

Perceived reality. For a week we knocked on doors, our own doors of perception, our belief systems-what we say is real or possible, what we dismiss as ridiculous, impossible. Some of us traveled out of our bodies on tours of the known universe—the coveted OOB. I didn't. Others encountered "entities" out there, beyond the known. I may have. Many of us engaged in heroic battles with our left brains. I did. Most of us opened worn steamer trunks and rummaged about in old memories. And each time I opened the trunk, I was rewarded. In the darkness of the monk's cell. I asked questions which I have continued to ask, questions which I seem to need to ask: What are world outlooks-whether religious, ethical, or political, and how do they function for us? Are they allusions to reality that must be interpreted to discover the reality behind the allusions? Do we create allusions to reality because we must tell ourselves stories to make sense of our lives—in order to get out of bed every morning? Bleak, very bleak view. Whatever the answer, the making of world



views may be eternal. From the Babylonian and Greek epics to the biomedical and cyberfantasies of today, we have created and recreated narratives. ideologies, and world views.
"When you start on your journey to

Ithaca," the Alexandrian poet Cavafy wrote, "then pray that the road is long, full of adventure, full of knowledge." Ithaca: legendary island home of the wanderer Odysseus and, for me, mythical end-place where I will shed my physical body. Many of us will reach the isle when we are old; some of us will cast anchor sooner than we had anticipated; most of us rarely stop and ponder what's on the other side, beyond the gateway to Ithaca—unless we're obligated by variables or glitches, the un-expected. "Always keep Ithaca fixed in your mind," Cavafy wrote. "To arrive there is your ultimate goal. And if you find her poor, Ithaca has not defrauded you. With the great wisdom you have gained, with so much experience, you must surely have understood by then what Ithacas mean." I am trying to understand what Ithacas mean. Not because it's a neat idea, a philosophical curiosity, but because I must. I am trying, as I recall my experiences, to gather up whatever bits and pieces of wisdom I have gained along the way. I want to say, I have not been defrauded, nor have I defrauded myself.

During the months following my experience at Monroe, I have pictured myself sailing into the port called Ithaca, and, for the first time, the hold my fears have had, have loosened—if even just a bit. And I've mulled the dolphin's message ("The wind, Nicodemus, the wind") from the gospel of John, chapter 3: "That which is born of the flesh is flesh, and that which is born of the Spirit is spirit. The wind blows where it wishes, and you hear the sound of it but do not know where it comes from and where it is going; so is everyone who is born of the Spirit." The dolphin gave me a gift: Born of flesh, I have locked myself in flesh, suspicious of things I cannot "see." After my brief sojourn at the Institute, however, I know I have the capacity to "see" beyond flesh or physical reality—a simple barber's basin into the wishes and whims of the wind as it blows. I can "see" the Shield of Mambrino. Paradoxically, I laugh as I say with Nicodemus, "How can these

things be?" DO

The Institute's programs include Gateway Voyage, Guidelines, Lifeline, and Hemi-Sync 2000. For further information, write to Helen Warring, The Monroe Institute, Route 1, Box 175, Faber, Virginia 22938; (804) 361-1252.